WIRELESS DEVICE AND METHOD OF OPERATING THE SAME

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a communication device, and more particularly, to a wireless device.

2. Background of the Related Art

With the development of communication technology, wireless communication has become a necessity for everyday use. As cellular phones, or mobile phones, subscriber unit, wireless devices, etc. (collectively referred to as cellular phones) are rapidly spreading, improved functions have been continuously developed for the cellular phones.

Generally, a cellular phone is classified into a bar type, flip type, and folder type. FIGS. **1**A, **1**B, and **1**C show the external shapes of the bar-type cellular phone, flip-type cellular phone, and folder-type cellular phone, respectively.

Until now, the cellular phones have been generally used for performing an audio communication service and a data communication service. However, mobile communication service providers have recently attempted to support an Internet service, facsimile service, and diverse multimedia services through the cellular phone.

In order to support the Internet service, facsimile service, and diverse multimedia services through the cellular phone as described above, the existing structure of the cellular phone shown in FIGS. **1**A to **1**C is inadequate. Specifically, most cellular phones currently on the market have a keypad which is provided on the front surface of a main body of the cellular phone and in which number keys, character keys, and function keys for performing various built-in functions are arranged.

However, in order to perform the above-described Internet service and web browser function, the cellular phone is required to have more keys in addition to the above-described number keys, character keys, and function keys. Since the above-described keys and a display device are arranged together on the front surface of the main body of the cellular phone, there are restrictions for arranging more keys in addition to the above-described keys on the front surface of the main body.

Meanwhile, since the display device (mainly, a liquid crystal display (LCD)) of the cellular phones currently on the market generally has a size corresponding to about 5 word lines, which is inadequate for performing an Internet search, chatting, cyber purchasing, etc. In other words, the cellular phones require larger LCDs. However, such an increase makes it more difficult to secure more space for the arrangement of keys for supporting the Internet service on the front surface of the main body.

Meanwhile, flip-type cellular phones having a large-sized screen have been popularized so that connection to the Internet or management of personal information can be implemented using the cellular phone. However, since the display device of the cellular phone is small, it is not suitable for the browser. Also, the method of searching information and the method of defining documents that define the information of the cellular phones are different from those used in general computers.

As a result, browsers for supporting a small screen size and monochromatic screen have been newly developed. A UP-type browser, that is one among such browsers, is built in a cellular phone so as to use the Internet through the cellular phone. For example, the UP browser of 3.1 Version for searching the Internet through the cellular phone can be manipulated through the keypad corresponding to the 3.1 Version. Accordingly, a user should manipulate the keypad corresponding to the 3.1 Version in case that he/she searches the Internet through the browser or uses a pocketbook function built in the cellular phone.

FIGS. **2**A and **2**B are diagrams illustrating examples of the screen of the display device of a related art flip-type cellular phone. As shown in FIG. **2**A, if the flip cover of the cellular phone is opened, the full screen **10** of the display device (for example, LCD) of the cellular phone is exposed, and thus the user can view information displayed on the full screen at a glance. Meanwhile, as shown in FIG. **2**B, if the flip cover is closed, only a portion **11** of the screen of the display device is exposed, and thus the user can view the displayed information from the exposed portion of the screen. That is, the user can view only a portion of the information.

As described above, the related art cellular phone has a disadvantage that the user needs to open the flip cover and then press the keypad of the main body if he/she wishes to select the displayed information when the flip cover is initially closed, causing an inconvenience for the user. Also, in order for the user to view the displayed information hidden by the closed flip, he/she needs to open the flip cover.

The above references are incorporated by reference herein where appropriate for appropriate teachings of additional or alternative details, features and/or technical background.

SUMMARY OF THE INVENTION

An object of the invention is to solve at least the above problems and/or disadvantages and to provide at least the advantages described hereinafter.

An object of the invention is to provide a cellular phone that can accommodate keys for performing functions of a web phone, digital phone, or Internet phone through the cellular phone.

Another object of the present invention is to provide a cellular phone that has a plurality of keypads for performing functions of a general cellular phone and Internet phone.

Still another object of the present invention is to provide a cellular phone that can accommodate a display device of a larger size required for performing the Internet function.

Still another object of the present invention is to provide a method of operating a cellular phone that can recognize the open/close state of a cover, and display information through a display device so that the displayed information conforms with the size of the exposed portion of the display device determined in accordance with the open/close state of the cover.

In one aspect of the present invention, there is provided a cellular phone comprising a main body having a display device of a predetermined size and a keypad provided on a front surface thereof, and a cover rotatably mounted on the main body and having different keypads provided on a front surface and a rear surface thereof, respectively.

In another aspect of the present invention, there is provided a method of operating a cellular phone including a main body having a display device of a predetermined size and a keypad provided on a front surface thereof, and a cover